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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/540,500	06/23/2005	Yee-Hyeng Kim	1005.008	4175

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EXAMINER

FONSECA, JESSIE T

ART UNIT	PAPER NUMBER
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3637

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/540,500	Applicant(s) KIM, YEE-HYENG	
	Examiner Jessie Fonseca	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claims 1-3 have been examined.

Claims 1-3 are considered to be drawn to a combination of a panel having interlocking folds with a locking nail.

Election/Restrictions

This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Species I: Fig. 5a

Species II: Fig. 5b

Species III: Fig. 5c

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

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The claims are deemed to correspond to the species listed above in the following manner:

Species I: 1-3

Species II: 1-3

Species III: 1-3

The following claim(s) are generic: 1-3.

The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Species I discloses a backflow prevention cap (V-shaped with extending member) fastened to a support surface by means of locking nail. Species II discloses a backflow prevention cap (V-shaped) fitted into the facing ends of the two outer interlocking folds of a panel. Species III disclose a backflow prevention cap (Triangular portion with extending member) fastened to a support surface by means of locking nail.

During a telephone conversation with Kenneth Booth on 5/3/07 a provisional election was made without traverse to prosecute the invention of species I, claims 1-3. Affirmation of this election must be made by applicant in replying to this Office action. No claims are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Specification

The abstract of the disclosure does not commence on a separate sheet in accordance with 37 CFR 1.52(b)(4). A new abstract of the disclosure is required and must be presented on a separate sheet, apart from any other text.

Claim Objections

Claim 1 is objected to because of the following informalities:

With regards to lines 8-9 of the claim: a hyphen is not necessary as the word "interlocking" may proceed to the subsequent line. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 rejected under 35 U.S.C. 102(b) as being anticipated by Weber (US 2,167,192).

With regards to claim 1: Weber discloses a panel (10) having interlocking folds which is used as an interior or exterior finishing material for buildings, comprising:

A panel body (10) having a tetragonal sheet shape (fig. 1);

outer interlocking folds (20, 21) provided on a surface of the panel body (10) by folding outwardly two neighboring sides of the panel body (10) so that the outer

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interlocking folds (20, 21) extend in parallel to the surface of the panel body (10) (fig. 1 and 4);

inner interlocking folds (26, 27, 28) provided on an opposite surface of the panel body (10) by folding inwardly two remaining sides of the panel body (10) opposite to the outer interlocking folds (20, 21) so that the inner interlocking folds (26, 27, 28) extend in parallel to the opposite surface of the panel body (10) (fig. 1); and

a locking part (32) capable of being fastened to a support surface by a locking nail (34) (fig. 2), the locking part (32) being provided at a corner of the panel body (10) between the inner interlocking folds (26, 27, and 28) while diagonally extending on a same plane as that of the panel body (10) (fig. 2 and fig. 3).

With regards to claim 2: Weber further discloses outer interlocking folds (20, 21) are provided with a backflow prevention cap (18, 19) capable of guiding water to the panel body while preventing a backflow of the water driven by wind into gaps defined between the outer interlocking folds of the panel and corresponding inner interlocking folds of neighboring panels that interlock with the outer interlocking folds of the panel.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Weber (US 6,617,386) in view of Lelli et al. (US 6,617,386).

With regards to claim 3/1: Weber fails to disclose the panel body (10) and the outer interlocking folds (20, 22) are coated, on outer surfaces thereof, with stone powders. However, Lelli et al. discloses a structural finish for use on the exterior of a building or structure, which includes siding (col. 1, lines 5-29). Leilli et al. further discloses the finish composition includes pumice stone powder (col. 2, lines 15-19). Therefore, it would been obvious to one of ordinary skill in the art at the time of the invention was to modify the panel body of Weber to include a finish/coating having stone powder as taught by Lelli et al. in order to provide a panel with increased durability and aesthetic qualities.

With regards to claim 3/2: Weber fails to disclose the panel body (10) and the outer interlocking folds (20, 22) are coated, on outer surfaces thereof, with stone powders. However, Lelli et al. discloses a structural finish for use on the exterior of a building or structure, which includes siding (col. 1, lines 5-29). Leilli et al. further discloses the finish composition includes pumice stone powder (col. 2, lines 15-19).

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Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention was to modify the panel body of Weber to include a finish/coating having stone powder as taught by Lelli et al. in order to provide a panel with increased durability and aesthetic qualities.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Clifton discloses a shingle having folds (US 1,436,945).

Heaney discloses a composite shingle having "backflow prevention cap" (US 1,936,055).

Olsen discloses interlocking shingles (US 2,601,833).

Turman discloses an interlocking shingle (US 2,421,766).

Wienand discloses a panel having folds (US 3,371,457)

Vallee discloses a metal shingle having folds (US 4,079,561).

Vallee discloses a metal shingle having folds (US 4,185,436).

Vallee discloses a metal shingle having folds (US 4,218, 857).

Ksajikian discloses an interconnecting plate structure (US 6,505,451).

Shirota discloses a roofing shingle having folds (US 6,619,006).

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jessie Fonseca whose telephone number is (571)272-7195. The examiner can normally be reached on M-F 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571)272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JF JF
5/10/07

LANNA MAI
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